

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-146496

(43)Date of publication of  
application :

---

(51)Int.Cl.

C22C 38/00

B22F 3/14

C22C 33/02

C22C 38/06

F01L 3/02

---

(21)Application number : 2000-340042 (71)Applicant MITSUBISHI MATERIALS  
CORP

(22)Date of filing : 08.11.2000 (72)Inventor : ORITO KENJI  
KAWASE KINYA  
MORIMOTO KOICHIRO

---

(54) IRON ALUMINIDE BASED SINTERED ALLOY HAVING SMALL  
ATTACKABILITY AGAINST OTHER MEMBER AND EXCELLENT MACHINABILITY,  
AND ITS PRODUCTION METHOD



(57)Abstract:

**PROBLEM TO BE SOLVED:** To provide an iron

aluminide based sintered alloy having small attackability against the other member and excellent machinability while maintaining wear resistance and to provide its production method.

**SOLUTION:** This iron aluminide based sintered alloy has a componential composition containing 5 to 35% Al and 0.7 to 3% C, and the balance Fe with inevitable impurities. The alloy has a structure where three phases composed of an iron aluminide phase 1 consisting of Fe

and Al, an Fe-C phase 2 consisting of Fe and C and a C phase 3 are coexistent. In its production method, a green compact is subjected to energizing press forming so as to be energized in a short time and simultaneously be pressurized.